

REMARKS

Claims 1-10, 12-14, 16-20, 22, 23, 25-29, 40, 41, 44, 46 and 47 are presently pending.

Claims 1, 4, 7-10, 12-14, 20, 22, 23 and 25-29 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,030,575 to Barron and further in view of U.S. Patent Nos. 5,413,750 to Kelman, 3,660,184 to Burelle, and 4,673,594 to Smith. It is respectfully submitted that claims 1, 4, 7-10, 12-14, 20, 22, 23 and 25-29 are not unpatentable over the cited references.

The Office action admits, p. 6, that “a preferable embodiment of Barron involves heating the binder prior to contact with the fibers.” The Office action continues, however, by stating that “such an embodiment does not exclude additional heating after the binder and fiber are contacted and such an embodiment is not excluded by the claims as currently drafted.”

While it is accepted that the methods recited in claims 1 and 28 do not exclude “heating the binder prior to contact with the fibers”, claims 1 and 28 require passing the mixed or contacted streams of reinforcing material and fiber through a heating zone before applying them to the surface. More specifically, the method of claim 1, as presently recited, includes passing a mixture of reinforcing material and binder through a heating zone produced by a heat source external to the mixture to heat the mixture, and applying a stream of the heated mixture to a solid support surface to adhere the mixture to the solid support surface. The method of claim 28 includes contacting a stream of reinforcing material and a stream of binder which pass through a heating zone as they are being directed towards a solid support surface, and applying the contacted streams of reinforcing material and binder, after they have passed through the heating zone, on the solid support surface so as to adhere then in place.

Moreover, it is not relevant that the “preferable embodiment” of Barron “does not exclude additional heating after the binder and fiber are contacted.” The fact that Barron does not exclude something is not the same as disclosing the same. Neither of the methods recited in claims 1 and 28 is disclosed in Barron.

The Office action, p. 6, states that a “key feature of Barron is the ability to reach a maximum temperature (“ramp up”)....” Barron sets forth that this ramping of the temperature “can be done via various means” (col. 8, l. 7), which are described as occurring at two different, alternative time intervals. The first time interval is, as agreed in the Office action, prior to contact with the fiber. This is disclosed, for example, at col. 8, ll. 19-26 (emphasis added):

As already noted hereinabove, in the present invention it is desirable to begin the binder melting process shortly before the fibers and binder particles contact each other, since this assures some level of immediate adhesion. This can be advantageously accomplished by ensuring that the binder passes into an area of increased temperature, for example, by passing briefly through a flame, ***prior to reaching the screen and contacting the fibers.***

The second time interval is after both the binder and fiber have contacted the surface of the screen. This is disclosed, for example, at col. 8, ll. 11-15 (emphasis added):

Thus, direction of the heat from a flame, hot air or gas source, microwave, or other energy source ***to heat the fibers and binder on the surface*** for the required length of time and from a predetermined distance is particularly effective.

The later time of heating is also discussed in Example 1, col. 11, ll. 49-50: “The flame spray heats the binder and fibers on the surface for a time period of approximately 0.8 sec....”

The Office action, p. 6, identifies a sentence from Barron as support for the assertion that Barron discloses heating the mixture or contacted reinforcing material and binder together: “it is necessary to heat from ambient or approximately ambient to about 200 degrees Celsius, beginning at approximately the time of contact between the binder and the fibers.” The Office action states that this language “clearly suggests that heat from an external source is applied to binder once it contacts the fibers.”

However, when read in context, this sentence does not state, nor does it suggest, heating the mixture or contacted reinforcing material and binder together before applying the heated mixture to the surface. Instead, this single sentence of Barron is directed to applying heat before the time when the binder and fiber are mixed, which is at the first time interval of applying heat that is disclosed in Barron and discussed above. The reference to “beginning at approximately the time of contact between the binder and the fibers” is to when the binder is to be at 200 degrees Celsius. This is accomplished by applying heat to the binder before it is mixed with the fiber. That this sentence refers to heating the binder alone is confirmed later in the same paragraph, which states (col. 7, ll. 60-62 (emphasis added)): “Since the present invention also specifies that a ‘proportional ratio’ can also be employed, ***the same binder could be heated to a lesser temperature....***”

The Office action further identifies a sentence in Barron that states “[o]nce the binder particles and fibers have been in contact under the controlled heat conditions as described above....” (Col. 8, ll. 50-55.) The Office action, p. 4 (emphasis added), states that “it ***appears*** that the method of Barron involves conditioning or heating the binder prior to and during contact with the fibers.” Barron must do more than describe something that appears to be relevant; Barron must actually disclose the claimed methods, which it does not. It is a leap to interpret the cited sentence to disclose heating the binder during contact with the fibers. The referenced sentence of Barron refers to “controlled heat conditions as described above.” What the sentence refers to, and as discussed in greater detail above, are the two ways of heating that are explicitly disclosed: (1) heating of the binder before contact with the fiber; and (2) heating of the binder and fiber together after they have been sprayed on the support surface.

The Office action, p. 4, also identifies a sentence in Barron that states: “the present invention includes a key feature a predetermination of the viscosity of the binder upon and during its contact with the fibers during processing.” (Col. 7, ll. 5-8.) The reference sentence, however, continues by stating that this “enables selection of a binder and heating conditions....” (Col. 7, ll. 7-8.) Nowhere does this referenced sentence, or the rest of Barron, state that this is accomplished by heating the binder and fiber together before spraying them on the support surface. What the sentence

refers to, and as discussed in greater detail above, are the two ways of heating that are explicitly disclosed: (1) heating of the binder before contact with the fiber; and (2) heating of the binder and fiber together after they have been sprayed on the support surface.

The Office action has not identified any part of Barron that explicitly discloses heating the binder and fibers together prior to spraying them on the support surface. Instead, the Office action has merely identified select portions of Barron which, when read in the context of the entire patent, support the conclusion that Barron only discloses (1) heating of the binder before contact with the fiber; and (2) heating of the binder and fiber together after they have been sprayed on the support surface. Thus, Barron does not disclose heating a mixture of reinforcing material and binder together prior to spraying the mixture on a support surface, and claims 1, 4, 7-10, 12-14, 20, 22, 23 and 25-29 are not unpatentable over Barron and further in view of Kelman, Burelle, and Smith, which also do not disclose heating a mixture of reinforcing material and binder together prior to spraying the mixture on a support surface.

Claims 2, 3, 5, 16-19, 40, 41, 44, 46 and 47 were rejected under 35 U.S.C. 103(a) as being unpatentable over Barron, Kelman, Burelle, and Smith, and further in view of either one of U.S. Patent No. 4,762,740 or GB2,015,915. Given the foregoing discussion of Barron, it is respectfully submitted that claims 2, 3, 5, 16-19, 40, 41, 44, 46 and 47 are not unpatentable over the cited references, none of which disclose heating a mixture of reinforcing material and binder together prior to spraying the mixture on a support surface.

Reconsideration and allowance of claims 1-10, 12-14, 16-20, 22, 23, 25-29, 40, 41, 44, 46 and 47 are respectfully requested.

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The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-135.

Respectfully submitted,

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